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Computers and Mathematics with Applications 48 (2004) 305–334

An International Journal
**computers &
mathematics**
with applications

www.elsevier.com/locate/camwa

BOOK REPORTS

The Book Reports section is a regular feature of *Computers & Mathematics with Applications*. It is an unconventional section. The Editors decided to break with the longstanding custom of publishing either lengthy and discursive reviews of a few books, or just a brief listing of titles. Instead, we decided to publish every important material detail concerning those books submitted to us by publishers, which we judge to be of potential interest to our readers. Hence, breaking with custom, we also publish a complete table of contents for each such book, but no review of it as such. We welcome our readers' comments concerning this enterprise. Publishers should submit books intended for review to the Editor-in-Chief,

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Rigid Body Dynamics of Mechanisms. Edited by Hubert Hahn. Springer. Heidelberg. Germany. (2003) 665 pages \$169.00

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Iterative Krylov Methods for Large Linear Systems. Edited by Henk A. van der Vorst. Cambridge University Press. New York, NY. (2003) 221 pages. \$60.00

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Applied Mathematics: Body and Soul, Volume 1. Edited by K. Eriksson, D. Estep, C. Johnson. Springer Publishing, Heidelberg, Germany. 425 pgs. \$49.95.

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1. W. Arthur Lewis. 2. Lawrence R. Klein. 3. Kenneth J. Arrow. 4. Paul A. Samuelson. 5. Milton Friedman. 6. George J. Stigler. 7. James Tobin. 8. Franco Modigliani. 9. James M. Buchanan. 10. Robert M. Solow. 11. William F. Sharpe. 12. Ronald H. Coase. 13. Douglass C. North. 14. John C. Harsanyi. 15. Myron S. Scholes. 16. Gary S. Becker. 17. Robert E. Lucas, Jr. 18. James J. Heckman. 19. Lessons from the Laureates: An Afterward. Notes.

Reversible Logic Synthesis From Fundamentals to Quantum Computing. Edited A.N. Al- Rabadi. Springer, Heidelberg. 2004. \$119.00.

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Arithmetic and Logic in Computer Systems. Edited by Mi Lu. Wiley Publishing, Hoboken, NJ. 2004. 246 pages. \$59.95

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Numerical Issues In Statistical Computing for the Social Scientist. Edited By Micah Altman, Jeff Gill, and Michael P. McDonald. Wiley, Hoboken, NJ. 2004. 323 pages. \$89.95

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Practical Genetic Algorithms. Edited by Randy L. Haupt and Sue Ellen Haupt. Wiley, Hoboken, NJ. 2004. \$74.95. 253 pages.

Preface. Preface to First Edition. List of Symbols.

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Applied Statistics Analysis of Variance and Regression. Third Edition. Ruth M. Mickey, Olive Jean Dunn, Virginia A. Clark. John Wiley & Sons, Inc. Hoboken, NJ. (2004) 448 pages. \$94.95.

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Digital Library Use, Social Practice in Design and Evaluation. Edited by Ann Peterson Bishop, Nancy A. Van House, and Barbara P. Buttenfield. The MIT Press, Cambridge, MA. (2003) 341 pages. \$40.00.

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1. Introduction: Digital Libraries as Sociotechnical Systems. Nancy A. Van House, Ann Peterson Bishop, and Barbara P. Buttenfield.

Part I. 2. Documents and Libraries: A Sociotechnical Perspective. David M. Levy. 3. Finding the Boundaries of the Library without Walls. Catherine C. Marshall. 4. An Ecological Perspective on Digital Libraries. Vicki L. O'Day and Bonnie A. Nardi.

Part II. 5. Designing Digital Libraries for Usability. Christine L. Borgman. 6. The People in Digital Libraries: Multifaceted Approaches to Assessing Needs and Impact. Gary Marchionini, Catherine Plaisant, and Anita Komlodi. 7. Participatory Action Research and Digital Libraries: Reframing Evaluation. Ann Peterson Bishop, Bharat Mehra, Imani Bazzell, and Cynthia Smith. 8. Colliding with the Real World: Heresies and Unexplored Questions about Audience, Economics, and Control of Digital Libraries. Clifford Lynch.

Part III. 9. Information and Institutional Change: The Case of Digital Libraries. Philip E. Agre. 10. Transparency beyond the Individual Level of Scale: Convergence between Information Artifacts and Communities of Practice. Susan Leigh Star, Geoffrey C. Bowker, and Laura J. Neumann. 11. Digital Libraries and Collaborative Knowledge Construction. Nancy A. Van House. 12. The Flora of North America Project: Making the Case [Study] for Social Realist Theory. Mark A. Spasser. List of Contributors. Index.

Putting Science In Its Place, Geographies of Scientific Knowledge. David N. Livingstone. University of Chicago Press, Chicago, IL. (2003) 234 pages. \$27.50.

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Mathematics in Nature, Modeling Patterns in the Natural World. John A. Adam. Princeton University Press. Princeton, NJ. (2003) 360 pages. \$39.50.

Contents:

Preface. Prologue. Chapter One: The Confluence of Nature and Mathematical Modeling. Chapter Two: Estimation: The Power of Arithmetic in Solving Fermi Problems. Chapter Three: Shape, Size, and Similarity: The Problem of Scale. Chapter Four: Meteorological Optics I: Shadows, Crepuscular Rays, and Related Optical Phenomena. Chapter Five: Meteorological Optics II: A "Calculus I" Approach to Rainbows, Halos, and Glories. Chapter Six: Clouds, Sand Dunes, and Hurricanes. Chapter Seven: (Linear) Waves of All Kinds. Chapter Eight: Stability. Chapter Nine: Bores and Nonlinear Waves. Chapter Ten: The Fibonacci Sequence and the Golden Ratio (τ). Chapter Eleven: Bees, Honeycombs, Bubbles, and Mud Cracks. Chapter Twelve: River Meanders, Branching Patterns, and Trees. Chapter Thirteen: Bird Flight. Chapter Fourteen: How Did the Leopard Get Its Spots? Appendix. Fractals: An Appetite Whetter... Bibliography. Index.

The Political Mapping of Cyberspace. Jeremy W. Crampton. University of Chicago Press. Chicago, IL (2003) 214 pages. \$25.00.

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Random Graphs for Statistical Pattern Recognition. David J. Marchette. John Wiley & Sons, Inc., Hoboken, NJ (2004) 237 pages. \$79.95.

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